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EXAMINER	
DAYE, CHELCIE L	
ART UNIT	**PAPER NUMBER**
2161	

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/675,450	MYHRE, NATHANIEL MARVIN	
	Examiner	Art Unit	
	Chelcie Daye	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is issued in response to Application filed September 30, 2003.

2. Claims 1-30 are pending.

Claim Objections

3. Claim 18 is objected to because of the following informalities: The first limitation is missing the word "the" between "if" and "electronic". Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

5. Claims 1-4,6,7,10,11,15-23,25,29, and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "if" in claims 1-4,6,7,10,11,15-23,25,29, and 30 are relative terms, which render the claims indefinite. The term "if" is considered alternative language, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Due to the language of the above stated claims, Examiner is unsure of what the outcome would be if the statement were not applied. Therefore, the above stated claims will be examined without giving weight to the term "if".

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-30 are rejected under 35 U.S.C. 101 because the claimed invention lacks patentability utility.

The basis of this rejection is set forth in a test of whether the invention is categorized as a process, machine, manufacture or composition of matter and if the invention produces a useful, concrete and tangible result. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) are found to be non-statutory subject matter. For a method claim to pass muster, the recited process must produce a useful, concrete and tangible result.

In the present case, claims 1-30 recite a computer-implemented method for searching through ink characters. While, the method does search, retrieve, accept, and determine alternate words and characters, the method fails to produce any tangible and useful results.

To expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. 101 (lack of utility) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention with utility.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Williamson (US Patent No. 6,785,417) issued on August 31, 2004.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding Claim 1, Williamson disclose a computer-implemented method for searching through ink characters within an electronic document comprising the steps of:

accepting a search query (columns 8-9, lines 67 and 1-5, respectively, Williamson);

retrieving a search query character from a search query word in the search query (column 8, lines 1-5, Williamson);

accepting an ink word from the electronic document (column 4, lines 25-28, Williamson);

accepting an ink alternate word (column 5, lines 7-10, Williamson), wherein the ink alternate word is an estimation of the ink word (column 5, lines 15-18, Williamson);

retrieving an ink alternate character for the ink alternate word (column 7, lines 1-4, Williamson);

determining if the ink alternate character matches the search query character (column 8, lines 61-67, Williamson); and

repeating steps d-f for a plurality of ink alternate characters (column 12, lines 45-54, Williamson)[1].

Regarding Claim 2, Williamson disclose the computer-implemented method further comprising the steps of:

accepting another ink alternate character for the ink alternate word in response to a positive determination that the ink alternate character matches the search query character (column 11, lines 18-25, Williamson);

accepting another search query character from the search query word (column 11, lines 36-39, Williamson);

determining if the other ink alternate character matches the other search query character (column 11, lines 39-42, Williamson);

determining if the other search query character is the last character in the search query word (column 12, lines 22-26, Williamson)[2] in response to a positive determination that the other ink alternate character matches the other search query character (column 12, lines 37-39, Williamson); and

sending a match to the match list (column 11, lines 18-19, Williamson) in response to a positive determination that the other search query character is the last character in the search query word (column 12, lines 22-26, Williamson)[3].

Regarding Claim 3, Williamson disclose the computer-implemented method further comprising the steps of:

determining if the search query contains another search query word (Fig.8, step 814; column 12, lines 51-54, Williamson);

retrieving a search query character of the other search query word in response to a positive determination that the search query contains the other search query word (column 11, lines 18-25, Williamson); and

determining if the search query character of the other search query word matches the ink alternate character of the ink alternate word (column 11, lines 39-42, Williamson).

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[1] Examiner Notes: Fig.8 shows step 816 looping around back up to step 802, in order to repeat the process again.
[2] Examiner Notes: The last character for the search query corresponds to 'e'.
[3] Examiner Notes: The determination was positive because the outcome was a match.

Regarding Claim 4, Williamson disclose the computer-implemented method further comprising the steps of:

accepting another ink alternate word in response to a determination that the ink alternate character does not match the search query character (column 12, lines 55-60, Williamson);

retrieving an ink alternate character for the other ink alternate word (column 7, lines 1-4, Williamson);

determining if the ink alternate character for the other ink alternate word matches the search query character (column 11, lines 39-42, Williamson); and

repeating steps a-c for a plurality of ink alternate words (column 12, lines 59-60, Williamson).

Regarding Claim 5, Williamson disclose a computer-readable medium having computer-executable instructions for performing the steps recited in Claim 1 (column 3, lines 12-22, Williamson).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 6-9,12-15, and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roche (US Patent No. 6,859,800) filed April 26, 2000 in view of Lopresti (US Patent No. 5,832,474) filed February 26, 1996.

Regarding Claims 6,12, and 25 Roche discloses a computer-implemented method for searching within an electronic document comprising the steps of:

accepting a search query (column 9, lines 48-50, Roche) comprising a search query word to be sought in the electronic document (Fig.6; column 13, lines 44-45, Roche);

determining if the search query word matches at least one set of characters in the electronic document (column 13, lines 54-56, Roche);

adding a match to a match list in response to a positive determination that the search query word matches the set of characters in the electronic document (column 23, lines 24-31, Roche);

sorting the matches in the match list (column 11, lines 4-6, Roche)[4];

identifying the match in the match list (column 20, lines 32-37, Roche) that is closest to a match point in the electronic document (column 21, lines 2-5, Roche); and

navigating through the electronic document to the match closest to the match point (column 22, lines 23-35, Roche). While Roche does disclose identifying the match closest to the match point, Roche is silent with respect to

highlighting the closest point. On the other hand, Lopresti discloses highlighting the match closest to the match point (column 7, lines 33-40, Lopresti). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Lopresti's teachings into the Roche system. Roche and Lopresti are analogous art because they are from the same field of endeavor of accepting and fulfilling a queries need that supports text data and user-drawn annotations. A skilled artisan would have been motivated to combine the highlighting feature of Lopresti with the Roche system as suggested by Lopresti at column 7, lines 36-41, in order to intensify the matching annotation (i.e. to help the desired match stand out visually for the user). As a result, highlighting the interesting portion of the document allows the user to identify the text more quickly, saving valuable time.

Regarding Claim 7, the combination of Roche in view of Lopresti, disclose the computer-implemented method further comprising the steps of:

retrieving document content from the electronic document (column 13, lines 4-6, Roche)[5];

accepting at least one document content character from the document content (column 12, lines 30-37, Roche);

determining if additional document content exists in the electronic document (columns 26-27, lines 64-67 and 1-2, respectively, Roche); and

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[4] Examiner Notes: "Ranking" corresponds to sorting.

repeating steps a-c for the additional document content (column 21, lines 59-61, Roche).

Regarding Claims 8 and 28, the combination of Roche in view of Lopresti, disclose the computer-implemented method wherein the search query comprises at least two search query words (Fig.7; column 14, lines 48-50, Roche), further comprising the step of processing a boolean operator in the search query (column 35, lines 61-64, Roche).

Regarding Claim 9 and 29, the combination of Roche in view of Lopresti, disclose the computer-implemented method wherein the step of processing a boolean operator in the search query comprises:

accepting the boolean operator from the search query (column 1, lines 29-33, Roche);

accepting a match to a first query word before the boolean operator from the match list (column 2, lines 9-17, Roche)[6];

accepting a match to a first query word after the boolean operator from the match list (column 2, lines 9-17, Roche)[7];

determining if the match to the first query word before the boolean operator and the match to the first query word after the boolean operator satisfy a

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[5] Examiner Notes: The retrieving of the document is performed by the retrieval application (column 11, lines 18-21, Roche).
[6] Examiner Notes: The first query word before the boolean is "Alexander" the match is "Alexander Heard".
[7] Examiner Notes: "Bell" represents the first query word after the boolean and the match is "Packard Bell".

spatial relationship (column 2, lines 24-30, Roche)[8]; and

removing from the match list the match to the first query word before the boolean operator and the match to the first query word after the boolean operator in response to a failure to satisfy the spatial relationship (column 2, lines 40-52, Roche)[9].

Regarding Claims 13 and 26, the combination of Roche in view of Lopresti, disclose the computer-implemented method wherein the match point comprises the cursor location in the electronic document (column 5, lines 29-31, Lopresti).

Regarding Claims 14 and 27, the combination of Roche in view of Lopresti, disclose the computer-implemented method wherein sorting the matches comprises sorting the matches in the match list by the page number in which the match is located in the electronic document (column 17, lines 31-34, Roche).

Regarding Claim 15, the combination of Roche in view of Lopresti, disclose the computer-implemented method further comprising the steps of:

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[8] Examiner Notes: The proximity operators correspond to the satisfying of the spatial relationship, because the user will designate a specific distance allowed between two terms and anything else is unacceptable.

[9] Examiner Notes: Reducing the number of irrelevant documents correspond to removing.

sorting a plurality of matches in the match list by page number in the electronic document (column 17, lines 31-34, Roche);

accepting a first match and a second match from the match list (column 13, lines 60-61, Roche);

determining if at least one character is between the documents content characters corresponding to the first match and the second match in the electronic document (column 2, lines 33-37, Roche)[10];

merging the first match and the second match in the match list in response to a negative determination of at least one character between the document content characters corresponding to the first match and the second match (column 12, lines 53-57, Lopresti)[11];

retrieving a next match in the match list (column 26, lines 64-66, Roche); and

repeating steps b-e for the plurality of matches in the match list (columns 26-27, lines 66-67 and 1-2, respectively, Roche).

11. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roche (US Patent No. 6,859,800) filed April 26, 2000 in view of Lopresti (US Patent No. 5,832,474) filed February 26, 1996, as applied to claims 6-9,12-15, and 25-29 above, and further in view of "Software Patent Institute Database of Software Technologies", Published 1997, will be referred to hereinafter as "SPI".

Regarding Claim 10, the combination of Roche in view of Lopresti, disclose the computer-implemented method wherein the spatial relationship is satisfied if the match to the first query word before the Boolean operator and the match to tie first query word after the boolean operator. However, Roche in view of Lopresti, are silent with respect to the spatial relationship occurring within the same paragraph of the electronic document. On the other hand, SPI discloses the spatial relationship occurring within the same paragraph of the electronic document (pg.3, lines 7-26, SPI). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate SPI's teachings into the Roche in view of Lopresti system. The combination of Roche in view of Lopresti, and SPI are analogous art because they are from the same field of endeavor of using search operators in order to search. A skilled artisan would have been motivated to combine the combination of Roche in view of Lopresti with the SPI teaching in order to allow the user to designate the spacing between two terms, which allows the for commanding the system to retrieve documents which contain the terms close to each other. Boolean operators are used for searching electronic documents and determining a query by joining terms. As a result, this allows for more control over the query results and reduction in number of irrelevant documents.

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[10] Examiner Notes: The search is for "Alexander NEAR Bell", an optional outcome is "Alexander Graham

Regarding Claim 11, the combination of Roche in view of Lopresti, and further in view of SPI, disclose the computer-implemented method wherein the spatial relationship is satisfied if the match to the first query word before the boolean operator and the match to the first query word after the boolean operator occur within the same page of the electronic document (pg.3-4, lines 41-48 and 1-8, respectively, SPI).

12. Claims 16-24 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roche (US Patent No. 6,859,800) filed April 26, 2000 in view of Lopresti (US Patent No. 5,832,474) filed February 26, 1996, and further in view of Williamson (US Patent No. 6,785,417) filed August 22, 2000.

Regarding Claims 16 and 30, the combination of Roche in view of Lopresti, disclose the computer-implemented method wherein the step of determining if the search query word matches at least one set of characters in the electronic document comprises:

accepting one of the search query words from the search query (column 13, lines 44-45, Roche); and

accepting a document content character from the electronic document (column 12, lines 30-37, Roche). However, the combination of Roche in view of Lopresti, is silent with respect to determining if the character is an ink character

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Bell", wherein Graham is an example of characters between the two matches.

or a text character; and conducting an ink character match in response to a determination that the first document content character is an ink character. On the other hand, Williamson discloses determining if the character is an ink character or a text character (column 4, lines 34-43, Williamson); and conducting an ink character match in response to a determination that the first document content character is an ink character (column 7, lines 31-35, Williamson). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Williamson's teachings of determining the character type, into the Roche in view of Lopresti system. The combination of Roche in view of Lopresti, and Williamson are analogous art because they are from the same field of endeavor of accepting and fulfilling a queries need with text data and ink data. A skilled artisan would have been motivated to combine as suggested by Williamson at column 14, lines 36-41, in order to allow the system to be more flexible and more varied with customization in order to meet a variety of scenarios.

Regarding Claim 17, the combination of Roche in view of Lopresti, and further in view of Williamson, disclose the computer-implemented method wherein the step of conducting a text character match comprises:

comparing the document content character to the search query character to determine if the characters match (column 18, lines 47-51, Roche);

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[11] Examiner Notes: The "errors" are indications of a negative determination.

determining if the search query word contains additional characters in response to a positive determination that the search query character matches the document content character (columns 26-27, lines 64-67 and 1-2, respectively, Roche);

retrieving another one of the search query characters in response to a positive determination that the search query word contains additional characters (column 11, lines 18-25, Williamson); and

sending a match to the match list (column 11, lines 18-19, Williamson) in response to a negative determination that the search query word contains additional characters (column 12, lines 22-26, Williamson).

Regarding Claim 18, the combination of Roche in view of Lopresti, and further in view of Williamson, disclose the computer-implemented method further comprising the steps of:

determining if electronic document comprises a next document content character (columns 26-27, lines 64-67 and 1-2, respectively, Roche) in response to a negative determination that the search query character matches the document content character;

retrieving the next document content character in response to a positive determination that the electronic document comprises the next document content character (column 13, lines 4-6, Roche); and

comparing the search query character to the next document content character to determine if the characters match (column 18, lines 47-51, Roche).

Regarding Claim 19, the combination of Roche in view of Lopresti, and further in view of Williamson, disclose the computer implemented method further comprising the steps of:

determining if the search query contains another search query word (Fig.8, step 814; column 12, lines 51-54, Williamson);

retrieving a search query character of the other search query word in response to a positive determination that the search query contains the other search query word (column 11, lines 18-25, Williamson); and

comparing the document content character to the search query character of the other search query word to determine if the characters match (column 18, lines 47-51, Roche).

Regarding Claim 20, the combination of Roche in view of Lopresti, and further in view of Williamson, discloses the computer-implemented method wherein the step of conducting an ink character match comprises:

accepting an ink alternate word (column 5, lines 7-10, Williamson), wherein the ink alternate word is an estimation of the actual ink word received by the electronic document (column 5, lines 15-18, Williamson);

retrieving an ink alternate character for the ink alternate word (column 7, lines 1-4, Williamson);

determining if the ink alternate character matches the search query character (column 8, lines 61-67, Williamson);

accepting another ink alternate word in response to a determination that the ink alternate character does not match the search query character (column 12, lines 55-60, Williamson); and

repeating steps b-d for the other ink alternate word (column 12, lines 45-54, Williamson).

Regarding Claim 21, the combination of Roche in view of Lopresti, and further in view of Williamson, disclose the computer implemented method further comprising the steps of:

accepting another ink alternate character for the ink alternate word (column 11, lines 18-25, Williamson);

accepting another search query character from the search query word (column 11, lines 36-39, Williamson);

determining if the other ink alternate character matches the other search query character (column 11, lines 39-42, Williamson);

determining if the other search query character is the last character in the search query word (column 12, lines 22-26, Williamson) in response to a positive

determination that the other ink alternate character matches the other search query character (column 12, lines 37-39, Williamson); and

sending a match to the match list (column 11, lines 18-19, Williamson) in response to a positive determination that the other search query character is the last character in the search query word (column 12, lines 22-26, Williamson).

Regarding Claim 22, the combination of Roche in view of Lopresti, and further in view of Williamson, disclose the computer-implemented method further comprising the steps of:

determining if the search query contains another search query word (Fig.8, step 814; column 12, lines 51-54, Williamson);

retrieving a search query character of the other search query word in response to a positive determination that the search query contains the other search query word (column 11, lines 18-25, Williamson); and

determining if the search query character of the other search query word matches the ink alternate character of the ink alternate word (column 11, lines 39-42, Williamson).

Regarding Claim 23, the combination of Roche in view of Lopresti, and further in view of Williamson, disclose the computer-implemented method further comprising the steps of:

determining if the electronic document comprises additional document

content characters (columns 26-27, lines 64-67 and 1-2, respectively, Roche);

retrieving a next document content character in response to a positive, determination that the electronic document comprises additional document content characters (column 11, lines 18-25, Williamson); and

determining if the next document content character is an ink character or a text character (column 4, lines 34-43, Williamson).

Regarding Claim 24, the combination of Roche in view of Lopresti, and further in view of Williamson, disclose a computer-readable medium having computer-executable instructions for performing the steps recited in Claim 6 (column 3, lines 12-22, Williamson).

Points of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chelcie Daye whose telephone number is 571-272-3891. The examiner can normally be reached on M-F, 7:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 571-272-4023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chelcie Daye
Patent Examiner
Technology Center 2100
March 20, 2006

Sana Al-Hashemi